DOCUMENT RESUME

ED 074 983 HE 004 010

TITLE	Institute for Training Minority Group Research and Evaluation Specialists II.
INSTITUTION	New York Univ., N.Y. Inst. of Afro-American Affairs.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C. Division of Higher Education Research.
BUREAU NO	BR-1-0310
PUB DATE	30 Sep 72
GRANT	OEG-0-4729
NOTE	68p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Disadvantaged Groups; *Educational Programs; Educational Research; *Educational Researchers; *Higher Education; *Institutes (Training Programs); *Minority Groups; Negro Education; Summer Institutes

ABSTRACT

The Institute for Training Minority Group Research and Evaluation Specialists II consisted of 3 elements: (1) a 6-week graduate course at New York University during the 1971 summer session for 15 minority group individuals to provide training in research design, statistics, data collection and analysis, and report writing; (2) the inclusion of 3 professors from predominantly black institutions to act as professional research associates in the Institute in order to assist black colleges to develop staff expertise in research training; and (3) a workshop at the 1972 AERA meeting for the participants of the summer workshop to provide opportunities for them to reinforce and supplement their research skills and to attend meetings at the convention. Evaluation of the program indicates that the program was successful in that 13 of the 15 participants are doing some work in educational research and exhibited a moderate rate of retention of theoretical research and statistical principles 6 months after the summer workshop. (Author)

FINAL REPORT

Project No. 1-0310
Grant No. OEG-0-4729

INSTITUTE FOR TRAINING MINORITY GROUP RESEARCH AND EVALUATION SPECIALISTS II

September 30, 1972

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

National Center for Educational Research and Development

Margot Ferris

Final REPORT RECEIVED AND APPROVED

Chief, Research Training Branch

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ABSTRACT

Institute for Training Minority Group
Research and Evaluation Specialists II

The Institute for Training Minority Group Research and Evaluation Specialists II consisted of three elements: (1) a six week graduate course at New York University during the 1971 Summer Session for fifteen minority group individuals to provide training in research design, statistics, data collection and analysis, and report writing, (2) the inclusion of three professors from predominately black institutions to act as professional-research associates in the Institute in order to assist black colleges to develop staff expertise in research training, and (3) a workshop at the 1972 AERA meeting for the participants of the Summer Workshop to provide opportunities for them to reinforce and supplement their research skills and to attend meetings at the convention.

Evaluation of the program indicates that the program was successful in that thirteen of the fifteen participants are doing some work in educational research and exhibited a moderate rate of retention of theoretical research and statistical principles six months after the Summer Workshop.

INTRODUCTION

In May, 1971, the National Center for Research and Development, United States Office of Education, funded a proposal of the Institute of Afro-American Affairs to conduct a short-term graduate training program in education research for members of minority groups. The 1971 proposal presented a modification and refinement of the 1970 Research Training Institute which grew out of the need for qualified minority group researchers to help plan educational research, collect, analyze and interpret data.

Although a large amount of contemporary educational research has been concerned with the needs, concerns, characteristics and programs for members of minority groups, minority group residents are concerned about the inappropriateness of many educational research studies regarding their real problems and concerns. They also feel that educational research is used to publicize some of the negative characteristics or behaviors of members of minority groups. These problems are further complicated by the very small number of minority group members who are involved in educational research. Thus, this program was based on the premise that researchers and administrators must give serious consideration to the complaints of the residents of the inner-city about educational research and attempt to rectify them through involvement of more minority group professionals in educational research.

PURPOSE

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). Prospective participants were

ials concerned with Title I or

s in urban areas in the United

States. (See Appendices II and III for the promotional announcement and the application form.) The participants were selected by the Institute staff after reviewing the applicants' backgrounds, experience, and interests in research, and after a personal and/or telephone interview.

The criteria for participation in the program were that the applicants be members of a minority group, have at least a Bachelor's degree, and hold a position with educational evaluation responsibilities. Particular care was taken to obtain a distribution of males and females. The following is the breakdown of the final selection of participants.

State	No.	Position	No.
Alabama	1	Teacher/Coordinator	4
Florida	1	Educ. Coordinator	1
Maryland	1	ESEA Title I Evaluator	2
Ohio	1	Educ. Prog. Director	3
Virginia	1	Psychometrist	1
District of Co.	1	Education Associate	2
Calif.	3	Helath Educ. Consultant	1
New York	6	Instructional Specialist	1
	15		15

Sex	No.	Ethnic Background	No.
Male	9	Black	11
Female	6	Puerto Rican	2
	15	Asian	1
		Chicano	1
			15

Professional-Research Associates

An innovation in the project was the inclusion of professional-research associates. In order to assist some of the predominately black colleges to develop their staff expertise in research training in conducting intensive research training experiences, the original plan was modified to include three professors from predominately black institutions to act as professional-research associates in the Research Training Institute. In May, 1971, recruitment materials were sent to the major colleges througout the nation that have a predominantely black student population and faculty. (See Appendix IV). After careful review of all applicants' backgrounds and qualifications, Dr. James H. Johnson, Associate Professor of Mathematics at Virginia State College, Dr. Harriette P. McAdoo, Associate Professor of Human Growth and Development at Howard University and Dr. John L. McAdoo, Associate Professor of Social Work Research at Howard University were selected to act in this capacity.

Staff

Dr. Roscoe C. Brown, Jr., Professor of Education at New York University was the principal instructor. Dr. LaMar P. Miller, Associate Professor of Education at New York University acted as a consultant on curriculum, and Dr. Than Porter, Assistant Professor of Educational Statistics in New York University's School of Education, lectured on the use

of computers in educational research and assisted individual students in computer usage for statistical problem solution. Ms. Louise Baggot, Research Assistant at the Institute of Afro-American Affairs coordinated the participants' field projects, and Ms. Kathleen Pfennigwerth, Administrative Assistant at the Institute ably conducted the administrative details of the program. The three research associates contributed significantly to the training process through their insightful participation in the workshop and supervision of the trainees' field projects.

The Program

Although similar in its basic format, the 1971 Institute program differed from the 1970 Institute in several aspects. First, the organization and emphasis on sections of the program's theoretical content was modified to reflect the components that were found to be most useful by the 1970 participants when implementing research on the local level. Specifically, increased attention was given to statistical procedures in that an elementary text on statistics was provided for each participant for review prior to his arrival at the workshop, and the group field projects were organized so that the participants could have experiences in their home districts.

The participants received credit for six points of graduate work in New York University's School of Education during the regular Summer Session, 1971, in course E10.2035,

"Methods in Research and Evaluation of Educational Programs." (See Appendix V). The basic text book for the course was David Fox's The Research Process in Education, published by Holt, Rinehart and Winston, Inc. The statistics text book was John B. Murray's Statistics in Psychology and Education, published by St. John University.

Additional instructional materials were distributed during the course.* A list of these materials follows:

A Diagram of the Research Process
The 17 Stages of the Research Process
A Sample Bibliography Card
The Normal Curve
Summary of Procedures for Association, Correlation and Prediction
Visualization of a Two-Tailed Test
Visualization of a One-Tailed Test
Conceptualization of Sampling Process in Retrospective Survey
Example of a Layout Sheet for Information to be Entered on Tally Sheet
Sample Punch Card
Sample Tally Sheet
Steps in the Questioning Method
Steps in the Measurement Method
Review - The Purposes of: Introductory Materials
Review of the Literature
The Hypotheses
The Procedures
The Presentation of the Results
The Discussion of the Results
The Conclusions and Implications
The Suggestions for Further Research
The Summary of the Study

The weekly schedule of activities was as follows:

*Reproduced from The Research Process in Education.

First Week:
- Introduction
- Purpose
- Basic Plan for Institute
- Types of Research
- Uses of Research and Evaluation
- Research Evaluation Plan
- Implementing Research
- Plan in Actual Field Situation
- Review of Literature
- Independent and Dependent Variables
- Introduction to Statistics
- Descriptive Statistics: Central Tendency
  Variablility
  Standard Scores

Second Week:
- Predictive Statistics: Correlation
- Inferential Statistics
- Quiz and Discussion
- Techniques of Research
- Reliability and Validity
- The Survey
- The Experiement
- Techniques of Observation
- Preparation of Questionnaires

Third Week:
- Development of Research Instruments
- Data Processing: Coding and Analysis of Data
  Use of Computers
- Report Writing: Outline and Project Report
- Selection of a Field Program
- Review of Title I Projects
- Review of Community Education Center Projects
- Methods of Improving Evaluation Design

Fourth Week:
- Assignment of Specific Field Projects
- Development of Plans for Evaluation
- Collection of Data on Specific Projects:
  - Instruments
  - Sample

Fifth Week:
- Collection of Data on Specific Projects (con't)
- Analysis of Data on Specific Projects
  - Statistics
- Preparation of Reports

Sixth Week:
- Presentation of Project Reports
- Identification of Major Points of Emphasis
- Evaluation of the Institute

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ıcerned the selection of field projects for the
:s. In an effort to make the formal training
:ive, the field projects were organized so that
.pants could have experiences in their home dis-
: the end of the third week of training, the par-
)egan the process of selecting a project. Each
;cussed his particular interests with the staff
.low trainees. Those trainees who had similar
.nd involvements in their home districts formed
)s in order to carry out their projects
'h the efforts of the Institute staff a number of
ucational projects throughout New York City had
ooperate with the Institute by allowing the
evaluate their programs as an experiential
ercise. Group assignments to specific projects
ted by the beginning of the fourth week. Be-
ssignments were related to the participants'
rests and similar work situations, four groups
size were assigned to different projects as

oject	No. in Group
o Del Barrio, A New York City ty Education Center project	5
Ahead, an ESEA Title I ion/learning Program pendix VI).	5

Title of Project	No. in Group
3. Education of Society for the Prevention of Adolescent Drug Abuse, a branch of the East Harlem Youth Employment Service	3
4. An Evaluation of the New York City Maternity and Infant Care-Family Planning Project	2

Each group was responsible for the total planning and implementation of an evaluation of its project. This entailed the development of survey research instruments, selecting an adequate sample, making initial contacts with members of the sample, collection of the data, determining the appropriate statistic for analysis of the data, interpretation of the findings and a final written report. During the fourth week of training, Professor Brown and the research associates met with the various groups to discuss the development of their plans and to offer guidance and critical comments where necessary. The collection and analysis of data was completed during the fifth week, during which time Professor Porter was available for consultation on the coding and analysis of the data and computer usage.

The sixth week was devoted to interpretation of results and the preparation of final written reports. One day of the sixth week was used for presentation of the final reports at which time each small group made an oral report to the entire group and submitted written copies to each trainee. In the discussion that followed each oral presentation, major points of emphasis were identified and the

total evaluation was critiqued by the trainees and Institute staff.

tructional Activities

The Institute secured housing and dining service for out-of-town participants at New York University, considerably below usual New York City rates. In addition, sightseeing information, announcements of cultural and social events at the University and throughout the city were made available. Finally, a culminating ceremony at which students were presented with certificates of participation was held to mark the end of the workshop.

Evaluation of the Summer Institute

The evaluation design for the Institute involved a four step process. First, the academic work in the classroom and the field projects of the participants were evaluated according to the criteria and standards required in all graduate level courses in the School of Education at New York University.

Second, a written evaluation was requested from each of the participants. (See Appendix VII). Since the evaluation was voluntary, for various reasons, five participants elected not to submit forms. However, ten of the fifteen participants did submit evaluations in which they offered recommendations to improve the program and for followup activities. A summary of their evaluation and recommendations follows:

	Very Good	Good	Fair	Poor	Synopsis of the comments for each category
Organization of the Institute	9	1			Showed careful planning, but needed more time for field experience.
Quality of Instruction	9	1			Outstanding; best ever experienced; clarified research concepts for 1st time
Field Experience	4	5	1		Frustrating but worthwhile learning experience which provided for application of research principles.
Presentation of Specific Topics	9	1			Scholarly presentation which provided another opportunity to reinforce learning
Problem Formulation	8	2			Precise
Hypothesis Statement	6	4			Difficult for students to accomplish; need evaluation and comments on each attempt
Statistics	6	2	2		Divided opinion: 1) could be compressed into one week; 2) too much too fast
Research Outline	9	1			Clear
Research Report	5	5			Need more guidance and critical comments during the writing process.
Uses of Evaluation	7	3			No comments

Recommendations for Improvement:

1. Allow more time to complete the field work assignment either by extending the length of the Institute or by reducing the length of the instructional phase.
2. Require all participants to live on campus to stimulate more interaction in educational and informal activities.
3. Send the research text as well as the statistics text to the participants before the beginning of the Institute.
4. Have copies of school programs and permission letters available for participants to read and choose a program for their field experience early in the workshop.

5. More time should be devoted to learning how to write research reports.
6. Participants with specific interests should be assigned to work with professional evaluators who have expertise in their area of interest.
7. Assign participatns to on-going research projects under the supervision of a professional research organization.

Recommendations for Follow-up Activities:

1. One week session should be held during which the participants can share their experiences in the practical application of their research training.
2. Regularly scheduled convocations of participants in the first and second Research Institutes to share ideas, problems and progress concerning research tasks.
3. Maintain a mailing list of both Institute participants and advise them of professional activities of interest to minority group members.
4. Develop a monthly newsletter in which the Institute and the participants of both workshops can communicate with each other and in which articles about research related to Black people can be provided.
5. Provide membership for the participants in research related professional organizations.
6. Combine the participants from the first and second workshops for an additional workshop.
7. The Institute should disseminate information to the participants about possible job opportunities in educational research.
8. A short review workshop during the following summer to cover research and evaluation techniques.

9. An evaluation conference at which the participants will submit papers based on their work experiences.

Third, an inquiry was sent to each of the participants four months after the termination of the Institute, asking them what aspects of their workshop experience had proved to be most practically worthwhile now that they were back in the field. (See Appendix VIII). Five responded that they had found the experience of designing and implementing a specific evaluation project to be the most beneficial aspect of their training. Two found the textbook and exposure to research literature to be most helpful. Five participants felt that the most important aspect of their training experience was their increased professional efficiency and the accompying self-confidence. One participant is utilizing his field work experience to design a research project which he plans to submit to his local board of education. The last participant has found the principles of research most beneficial in helping him to re-evaluate his own teaching techniques and has stimulated ideas for specific areas of research and evaluation.

The final part of the evaluation design for the Institute was the development of a fifty multiple-choice item examination which was administered to the participants six months after the end of their training. This examination was developed to assess the degree of retention of theoretical concepts presented in the summer workshop. (See Appendix IX). Twelve of the fifteen participants completed and returned the examinations. The range of correct re-

sponses was from forty-four to fifteen out of fifty, with an average of 30.91 items or 61.82% correct.

An analysis of the examination items revealed that one question had no incorrect responses, four questions had one incorrect response, nine questions had two incorrect responses, seven questions had three incorrect responses, six questions had four incorrect responses, three questions had five incorrect responses, seven questions had six incorrect responses, six questions had seven incorrect responses, four questions had eight incorrect responses, one question had nine incorrect responses, and two questions had ten incorrect responses. The distribution was as follows:

Item No.	Subject Area	No. Wrong (0-3)
1	General research theory	1
6	General research theory	1
16	General research theory	2
35	General research theory	2
47	General research theory	2
9	Definition of research term	2
33	General report writing theory	3
42	General report writing theory	3
10	Report writing procedure	2
39	General data processing theory	1
44	General data processing theory	3
5	Data processing fact	3
28	Data processing fact	0
32	General statistical theory	1
46	Specific statistical procedure	3
24	Specific statistical procedure	2
26	Specific statistical procedure	2
27	Specific statistical procedure	3
3	Test construction theory	2

Item No.	Subject Area	No. Wrong (4-6)
7	General research theory	4
21	General research theory	4
23	General research theory	6
45	General research theory	5
14	Specific research procedure	6
22	Specific research procedure	5
40	General report writing theory	4
11	General statistical theory	6
15	General statistical theory	6
41	General statistical theory	4
43	Statistical definition	5
50	Statistical definition	6
13	Specific statistical procedure	6
20	Specific statistical procedure	4
29	Statistical problem	4
49	Measurement definition	6
2	Data processing application	4

Item No.	Subject Area	No. Wrong (7-10)
4	General research theory	8
34	General research theory	7
8	Specific research procedure	7
36	Specific research procedure	7
19	General statistical theory	7
12	Specific statistical procedure	8
17	Specific statistical procedure	9
18	Specific statistical procedure	10
31	Specific statistical procedure	8
48	Statistical definition	7
25	Statistical problem	8
30	Statistical problem	8
37	Statistical problem	7
38	Statistical problem	10

From this analysis it was apparent that the participants were able to grasp the basic principles of research design and evaluation but had considerable difficulty with more complicated statistical procedures.

Discussion

The results of this examination raise some questions about the feasibility of offering concentrated statistical training in a short-term workshop which also provides fundametnal research principles and practical field experience. One possibility of altering the design of the workshop to decrease this problem is to select participants who have had prior training in statistics.

Follow-up Workshop at the Annual Meeting of the American Educational Research Association

The original proposal was modified to include a one day workshop for the participants and research associates which was conducted by the Institute staff during the presession of the American Educational Research Association meeting. Twelve of the participants and the three research associates attended this workshop which was held on April 3, 1972 in Chicago, Illinois. (See Appendix X).

The workshop was designed to provide an opportunity for the participants to supplement and reinforce their learning through the sharing of experiences about their individual integration of practical application and theoretical knowledge. Furthermore, the workshop provided an opportunity for the participants to identify specific problems which they had encountered in implementing research designs in their own environments and to encourage group cooperation in the development of solutions to these problems.

Each participant gave an oral presentation about his professional activities; how he had utilized the skills

acquired during the summer institute, and the specific problems that he had met in applying these skills in his professional capacity. At the end of each presentation, a discussion ensued in which the group, led by an Institute staff member, worked jointly to develop alternate solutions to these problems. Frequently, the group members asked for a more detailed statement of the problem. Sometimes the process of identifying specific components of the problems for the group helped many of the participants to gain new preceptions of their problem and different approaches to solutions. Other times, the group members were able to relate to common problems and jointly develop solutions.

Eleven of the twelve participants who attended the workshop reported that they were employed in positions in which they used the skills acquired in the Summer Institute. One participant presented a comprehensive research evaluation plan for the Chicano Studies program in his school district, and other participants submitted reports on the progress of research activities in their work situations.

Conclusions

1) The fundamental purpose of the summer workshop was accomplished; that is, the workshop provided a basic training experience for fifteen minority group members in educational research and evaluation techniques. The objective examination administered six months after the workshop indicated a moderate retention rate of the theoretical concepts but pointed up general difficulty in understanding of complex statistical procedures. As attested to by most of the participants, the

understanding of research and evaluation pr
contributed significantly to their sense of
and although they recognize that more traini
they feel that they are able to perform more
to ask more pertinent questions in their wor

2) A critical assessment of the written p
participants' field projects reveals that th
are able to translate general research theor
cal procedures and apply them in specific si
some degree of competency. However, one mus
that these were group projects carried out u
vision of the Institute staff and the Resear
In such working conditions it is possible to
resources that are unavailable where individ
forming alone. This was highlighted by the
accounts of their individual experiences in
workshop.

3) In summary, the evaluative data indica
model represents an effective system for rec
ing minority group members in educational re
suggested that the model could be expanded a
by other universities. It is also suggested,
serious consideration be given to possible e
modification of the model to include some of
and recommendations in this report.

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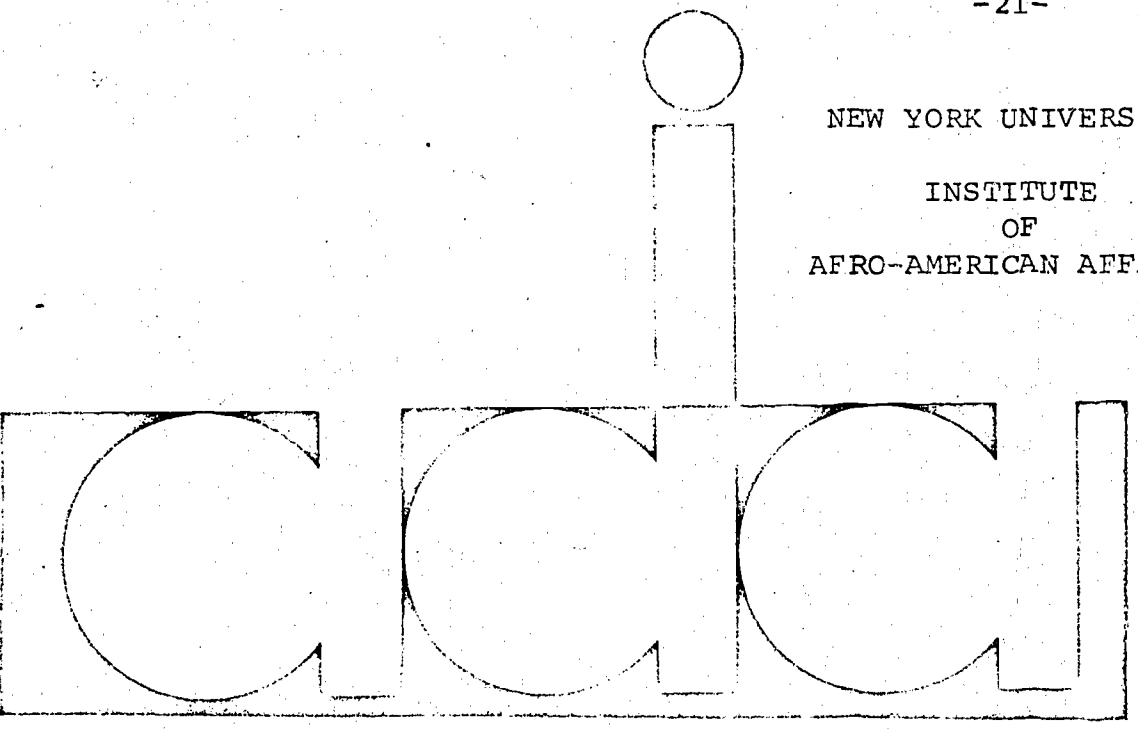
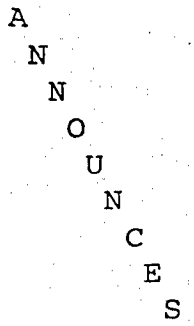
Appendix I

PARTICIPANT LIST
SUMMER INSTITUTE FOR TRAINING MINORITY GROUP
RESEARCH AND EVALUATION SPECIALISTS II

Sheila Aspinall 1027 East 211 Street New York, New York 10469	Teacher & Asst. Coordinator New Dynamic Reading Program N.Y.C. Board of Ed. 110 Livingston St. New York, N.Y. 10469 212 - 876 - 8771
Antonio Astengo, Jr. 103 Pepper Lane Petaluma, California 94952	Educationa: Opportunities Coord. Sonoma State College 1801 East Cotati Ave. Rohnert Park, California 94928 707-795-2427
Eugene R. Calderon 1749 Montgomery Ave. New York, New York 10453	Director, Community Ed. Center, Dist. 4, 346 E. 117th St. New York, N.Y. 212-831-4029
Marie Collins 110-17 153St. Jamaica, N.Y. 11433	Supervisor of Recreational & Community Activities Bd. of Ed. - Dist. 16K 1010 Lafayette Ave. Brooklyn, N.Y. 11221 212-491-4646
Margaret L. Drake 2551 Tidewater Drive Norfolk, Va. 23504	Evaluator of Special Projects, ESEA, Title I -Norfolk City Schoc 800 City Hall Ave. Norfolk, Va. 23501 703-441-2937
Donald Fennell 199 Montecito Ave. #106 Oakland, California 94610	Teacher on Special Assignment to Research Department Oakland Public Schools 1025-2nd Ave. Oakland, Calif. 415-836-2622
Mary Jane Fernandez 812 Panoramic Highway Mill Valley, Calif.	ESEA Title I Evaluator Compensatory Resource Center 844 Folsom St. San Francisco, Calif. 94941 415-388-9712

Frank Gonzalez 780 Concourse Village, W. Bronx, N.Y. 10451	Teacher, Community Ed. N.Y.C. Bd. of Ed. - P.S. # 30 144-176 E. 128th St. New York, N.Y. 212-427-3122
Earl Hunter 17 42nd St. N.E. Washington, D.C. 20019	Educational Associate, Planning Research & Evaluation D.C. Public Schools 415 W. 12th St., N.W. Washington, D.C. 202-347-6384
Sallie Johnson 555 Gayle Mobile, Alabama 36604	Psychometrist Mobile Co. Bd. of School Commissioners P.O. Box 1549 Mobile, Alabama 36601 205-468-6011
Nathaniel Norment 451 Fulton Ave., Apt. # 320 Hempstead, N.Y. 11550	Teacher & Coordinator, Open Admissions Tutoring & Writing Center - City College 138 Convent Avenue. New York, N.Y. 212-621-2177
David L. Sanders 3851 Queen Crest Avenue Cincinnati, Ohio 45236	Associate Evaluation Specialist Cincinnati Public Schools 230 E. 9th Street Cincinnati, Ohio 45202 513-621-7010
Robert Saunders 367 Douglas St. Brooklyn, N.Y. 11217	Health Education Consultant for Central & West Harlem Dept. of Health, H.E.W. 2090 7th Ave. New York, N.Y. 212-783-0534
James Spencer 7816 Hastings Drive Seat Pleasant, Maryland 20027	Educational Research & Planning Associate - D.C. School System 415 W. 12th St. Washington, D.C. 202-347-9191
Dorothy Williams 1585 West 25th Street Jacksonville, Florida 32209	Instructional TV Utilization Spec. Duval County Board of Public Instruction - 2037 N.Main St. Jacksonville, Fla. 904-791-0381





THE SECOND SUMMER INSTITUTE FOR TRAINING MINORITY GROUP RESEARCH AND EVALUATION SPECIALISTS **

July 6 - August 13, 1971

Supported by the United States Office of Education under a grant from the National Center for Research and Development

I. PROGRAM

An introductory experience in educational research will be offered for fifteen minority group evaluation specialists in various Title I or community education projects. Three professors from predominately minority group institutions will participate in this Institute as Professional Research Associates. Formal classes in methods of research and evaluation of educational programs will be offered. Data collection techniques, analysis of data, and the relationship of analysis of data to objectives and community participation in evaluation will be included in the course. A field project will be designed which will emphasize the pragmatic application of this training program to each participant's home base responsibilities and to make the students more aware of what is involved in implementing educational research in minority group settings. Participants will have the opportunity to engage in the actual process of evaluation by selecting a sample, making initial contacts with the members of the sample, and carrying out interviews. The Professional Research Associates will assist in the conduct of the field projects. Six points of graduate credit will be granted from the School of Education of New York University for student participation in this Institute.

II. QUALIFICATIONS FOR APPLICANTS

The Institute is seeking applicants who have responsibility for program evaluation in Title I ESEA projects or in community education projects sponsored by state or local public educational agencies throughout the

III. STIPENDS, ALLOWANCES, AND BENEFITS

Stipends are $75 per week and $15 per dependent. Tuition charges are waived. Transportation expenses will be reimbursed. Housing and meal plans may be obtained at minimum cost in University residence halls.

IV. FACILITIES

The regular academic and library facilities of New York University will be available to participants.

**This Institute is contingent on final approval and funding from The National Center for Research and Development, U.S.O.E.

Institute Staff

Roscoe C. Brown, Jr., Ph.D.	Director
LaMar P. Miller, Ph.D.	Education Director
Louise A. Baggot	Coordinator of Field Experiences
Richard A. James	Project Assistant
Kathleen Pfennigwerth	Administrative Assistant

****

This Institute is in compliance with Title VI of the Civil Rights Act of 1964, which states: "No person shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

****

If interested, please tear off and return to:

Professor Roscoe C. Brown, Jr.
Summer Institute II
Institute of Afro-American Affairs
New York University
10 Washington Place
New York, New York 10003

_____Yes, I'm interested. Please send me an application.

NAME_____

MAILING ADDRESS_____

_____

_____

_____

(AS WE WISH TO COMPLETE THE SELECTION OF PARTICIPANTS BY EARLY MAY, YOUR IMMEDIATE RETURN OF THIS TEAR SHEET BY AIR MAIL IS REQUESTED!)

Appendix III

NEW YORK UNIVERSITY
Institute of Afro-American Affairs
778 EDUCATION BUILDING
WASHINGTON SQUARE, NEW YORK, N.Y. 10003
AREA 212 598-7035

INSTITUTE OF AFRO-AMERICAN AFFAIRS
10 WASHINGTON PLACE
NEW YORK, N. Y. 10003

APPLICATION FOR INSTITUTE FOR TRAINING MINORITY GROUP RESEARCH AND EVALUATION SPECIALISTS

1. Applicants full name: Mr. / Miss / Mrs. _____ Last (Family) First Middle Initial
2. Permanent home address: Street _____
   City _____ State _____ Zip Code _____
   Telephone: Area code _____ Home Telephone _____ Business Telephone _____
3. Date of birth: _____
4. Marital status: ____Single ____Widowed ____Married ____Divorced
5. Social security # _____
6. No. of dependents as determined by income tax exemptions: _____
   (This information is necessary to arrange for stipends; no facilities are available in University housing for dependents.)
7. Present occupation: _____
8. Employer: _____ No. yrs. there _____
   Address: _____ Supervisor _____
   Give your job prior to present one: _____ No. yrs. there _____
9. Highest degree held: _____ School: _____
   Date _____ Field of specialization _____
10. Presently attending college or university? ____Yes ____No If yes, name of school: _____
    What degree are you working for? _____ Field of specialization _____
11. Have you had any formal training in research design or evaluation? ____Yes ____No
    If yes, how much and where? _____
12. Have you had any formal training in statistics? ____Yes ____No
    If yes, how much and where? _____

13. Have you had any actual experience conducting evaluations? _____Yes _____No

If yes, give title, date and location of most recent evaluation that you have been involved in:

_____
(Title of program) (Agency) (Date)

14. If no evaluation experience, what experience do you have in working in special education programs? List the two most recent projects that you have been involved in:

a. _____
(Title of program) (Agency) (Date)

b. _____
(Title of program) (Agency) (Date)

15. References: (Two persons professionally acquainted with you)

_____ _____
(Name) (Address)

_____ _____
(Name) (Address)

16. Write a brief statement (50 to 100 words) explaining why you with to participate in the workshop. (If you need more space, please attach another sheet)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

_____ _____
(Today's date) Signature of applicant

Appendix IV

PROFESSIONAL RESEARCH ASSOCIATES

PARTICIPATING

IN THE

SUMMER INSTITUTE FOR TRAINING MINORITY GROUP
RESEARCH AND EVALUATION SPECIALISTS II

Dr. Harriette P. McAdoo 5209 Eliot's Oak Road Columbia, Maryland 26014	Assoc. Prof. - Human Growth & Dev. Howard University Washington, D.C. 20001
Dr. John L. McAdoo 5209 Eliot's Oak Road Columbia, Maryland 26014	Assoc. Prof. - Social Work Research Howard University Washington, D.C. 20001
Dr. James H. Johnson 7 - A Watson Ettrick, Virginia 23803	Assoc. Prof. - Mathematics Virginia State College Petersburg, Virginia 23803

Appendix V

OUTLINE

SUMMER INSTITUTE FOR TRAINING MINORITY GROUP RESEARCH AND EVALUATION SPECIALISTS II

Text: Fox, David. The Research Process in Education

(Text and instructional material will be distributed at the first meeting of class.)

FIRST WEEK

Tuesday, July 6
9:30-Noon Introduction, Purpose Basic Plan for Institute
1:30-4:00 Types of Research Uses of Research & Evaluation
(Chapter 1)

Wednesday, July 7
9:30-Noon The Research Evaluation Plan: Flow-chart, Steps, Stages 1-13, Implementing Stages 14-16
1:30-4:00 Implementing Research Plan in Acutal Field Situation
(Chapter 2)

Thursday, July 8
9:30-Noon Types of Research
(Chapter 3)
Review of Literature
(Chapter 4)
1:30-4:00 Independent and Dependent Variables

Friday, July 9
9:30-Noon Introduction to Statistics
(Chapter 5)
1:30-4:00 Descriptive Statistics: Central Tendency, Variability, Standard Scores

SECOND WEEK

Monday, July 12
9:30-Noon Predictive Statistics: Correlation
1:30-4:00 "
(Chapter 7)

Tuesday, July 13
9:30-Noon Inferential Statistics
1:30-4:00 Quiz and Discussion

Wednesday, July 14
9:30-Noon Techniques of Research
(Chapter 11)
1:30-4:00 Reliability and Validity
(Chapter 12)

Thursday, July 15
9:30-Noon The Survey
(Chapter 15)
1:30-4:00 The Experiment
(Chapter 16)

Friday, July 16
9:30-Noon Techniques of Observation
(Chapter 17)
1:30-4:00 Preparation of Questionnaires
(Chapter 18)

THIRD WEEK

Monday, July 19
9:30-Noon Developement of Research Instruments
1:30-4:00 "

Tuesday, July 20
9:30-Noon Data Processing: Coding and Analysis of of Data
1:30-4:00 "

Wednesday, July 21
9:30-Noon Data Processing: Use of Computers
1:30-4:00 Report Writing: Outline & Project Report

Thursday, July 22
9:30-Noon Selection of a Field Program
1:30-4:00 Review of Title I Projects
Review of CEC Projects

Friday, July 23
9:30-4:00 Methods of Improving Evaluation Design

FOURTH & FIFTH WEEKS

Monday, July 26 - Friday, August 6
Assignment to Specific Projects
Development of Plans for Evaluation

Collection of Data on Specific Projects;
Instruments
Sample
Analysis of Data on Specific Projects
Statistics

Preparation of Reports

SIXTH WEEK

Monday, August 10 - Friday, August 1
Presentation of Project Reports
Identification of Major Points of Emphasis
Evaluation of the Institute

Institute Staff

Instructors: Prof. Roscoe C. Brown, Jr.
Prof. LaMar P. Miller

Project Assistant: Louise Baggot
Project Administrator: Kathleen Pfennigwerth

Appendix VI

AN EVALUATION OF PROJECT AHEAD

by

Margaret Drake
Kathleen Johnson
Earl Hunter
David Sanders
Dorothy Williams

Dr. Harriett MacAdoo, Coordinator

NEW YORK UNIVERSITY, SUMMER

INSTITUTE FOR TRAINING MINORITY GROUP

RESEARCH AND EVALUATION SPECIALISTS II

This study was prepared as a practice exercise in research and evaluation and in no way should be considered an evaluation of the total program.

Summer, 1971

Contents

AN EVALUATION OF PROJECT AHEAD
Summer, 1971

Project Ahead, ESEA Title I Project, is designed to "promote Awareness, Health, Enjoyment, Appreciation and Dedication in children as they learn through recreational activities." This project supplements the curriculum of the Learning Centers at six public schools in District 16, Brooklyn, New York, operating for six weeks. The hours of operation are from one o'clock to five o'clock in the afternoon.

The design of Project Ahead is to broaden several aspects of traditional Vacation Day Camp programming, through its extended staff and additional activities. The professional staff for each center consists of one head teacher, four regular teachers and four para-professionals with supervision from a Project Director and Curriculum Specialist. The services of educational assistants and community resource personnel have been encouraged. Provisions have been made for activities of field trips, athletic events, dramatics and play, which reinforce basic skills.

The purpose of Project Ahead is the development of summer programs that will find a combination of learning and recreation which will result in high motivation and

high personal interest on the part of the enrolled students. The Project Ahead Staff assumed, "learning takes place best when two factors are present: high motivation and personal interest," (Board of Education, 1971, p. 6.)

The purposes of the study were: (1) To conduct an evaluation on the effect of a summer program, combining recreation and learning activities, on the students, as measured by their percentage of voluntary pupil attendance; and (2) To develop an inventory that could be used to give an indication of the sue of instructional techniques that combine recreation-and learning, that could be applicable in similar summer programs.

Review of Literature:

Literature dealing with the effect of high motivational techniques upon the percentage of daily attendance appears to be limited. The literature indicated consensus of opinion among many educators that high motivational techniques are vital as alternatives to traditional schooling in effective teaching-learning processes (Stevens, 1971, Harsley, 1971; Warren, 1971, Borton, 1970; Whyte, 1970; Lansner, 1970; Hentoff, 1970; Bard, 1970; and Clark, 1970).

Research studies on the effect of high motivational techniques have shown improved achievement in mathematics

and language arts (Warren, 1971); highest scores on city-wide reading test (Herse and Lee, 1970); superior performance of secondary "IPI" (Individually Prescribed Instruction) science students as compared to University of Pittsburgh freshmen on a comparison sample test (Bard, 1970); and increased reading skills by one to two levels (Clark, 1970).

Other studies on the effect of high motivational techniques have shown less alienation of students (Harsley, 1971); improved classroom atmosthpere, better student behavior (Warren, 1971); the selection of mathematics as a favorite subject (Bard, 1970). Clark (1970) found a positive relationship between teachers' use of high motivational techniques and a high percentage of attendance.

Literature also showed positive relationships between motivational techniques, student enthusiasm, increased achievement, holding power and percentage of daily attendance.

The evaluation team examined the following programs which were: "Summerhill in Ithaca," a laboratory atmosphere for learning (1970); IPI (Individually Prescribed Instruction) set up under the guidance of behavioral scientists at the Learning Research and Development Center, University of

Pittsburgh and Robert Clark's (1970) summer program of filmed creative dramatics and simulation games in Willow Grove, Pennyslvania. These programs showed great commonality, in that they subscribed to the high motivational laboratory atmosphere encompassing the creative and recreational approach.

Project Ahead in its day camp setting appeared to operate in a similar atmosphere and was designed to make learning a creative and pleasurable experience.

Definition of Terms

Recreational learning is the combining of planned fun activities and basic skills in order to stimulate an interest in learning. This will be measured by evaluators' rating sclae and teachers' self-rating (see Appendix 2).

Attendance will be compared with enrollment to indicate percentage over a two-week period.

Innovation will indicate a planned change in the way of doing things; the introduction of something new; a new idea, method, or device to help facilitate learning.

Motivation, as defined by Good (1959), is the practical art of applying incentives and arousing interest for the purpose of causing a pupil to perform a desired way.

Technique is a process, manipulation, or procedure

required in any art, study, activity or production (Good, 1959).

A resource teacher is a teacher who possesses special competence in a particular area or subject and who may be called upon by other teachers to assist them in the selection of appropriate materials and teaching procedures (Good, 1959).

Pupil-centered refers to activities planned with and basically carried out by the students.

Teacher-oriented refers to activities revolving around the teacher with limited pupil participation.

A para-professional is one who assists the teacher in implementing the educational program.

Based on the review of literature, it was assumed that:

1. High attendance in a voluntary summer program is an indication of high pupil interest;

2. High pupil interest results from successfully combining recreation and learning;

3. Classroom activities planned by the teacher, combining recreation and learning, will result in high interest and

4. Planned activities and effective organization of learning centers will result in high motivation and better attendance.

Hypotheses

1. It is hypothesized that classes with higher percentages of attendance will have significantly higher ratings than classes with low percentage of attendance.

2. It is hypothesized that there will be a significant difference between teachers of the six learning centers on sample lesson ratings, self ratings, enrollment and percent of attendance.

Limitations

The populations size was too small to allow for use of inferential statistics. The timing of the project in the middle of the sessions, did not allow for pre or post sampling that would give an estimation of pupil change. The lack of information on achievement levels or learning outcomes did not allow for study of the effect of the program type on the actual intellectual growth of the children.

Research Method

Population

The population was composed of 892 students and their twenty-four instructors in the Learning Centers in Brooklyn, P.S. District #16. The Centers were all located in multi-ethnic neighborhoods which range from low to lower-middle income levels. A racial breakdown was not available but the vast majority of the students appeared to be Black or Puerto Rican. The students ranged in age from five to fourteen covering grades pre-kindergarten to sixth grade.

The teachers in the Learning Centers were those who are regularly employed in the New York public schools. They were selected from those applying for positions, with priority being given to those who were involved in the program last summer.

Data Collection Procedure

Sample Lessons (SL). Each week teachers were required to turn in a sample lesson that had been used in the classroom. A lesson plan was not required. The behavior lesson objectives and actual learning activities of the sample lesson were submitted. Samples of pupil's work for that activity were also attached. The SL were collected by the teacher in charge and filed in the project director's

office. The SL for the third week were selected as a sample. The teachers were not aware of the fact that the SL were to be rated. Each of the SL was rated, using the inventory, independently by the six evaluators. The SL average score became the teachers' SL score.

Teacher Self-Rating (SR). The inventory was given to the acting director to distribute to each teacher at a faculty meeting during the fourth week. Each teacher was asked to select an activity that took place on Thursday and Friday of that week and rate it, using the inventory. The sum on this rating became the teacher's SR score.

Percent of Attendance. The enrollment for each class was obtained from the Centers. Daily attendance for the second and third weeks was obtained from the head teachers of each of the six centers. The percentage of attendance was based on the class records over the ten days of the second and third weeks, preventing bias that would occur if only one day were selected. Actual attendance was found to alter depending on the weather, planned activities (field trips and other special events), and vacation plans of the home. Percentage of attendance was the obtained ratio between aggregate days attendance and aggregate days membership.

Rating Instrument

An inventory was designed to evaluate the teachers'

instructional activities which combined recreation and learning. Fox (1969), discussed the development of an instrument for scaling, specifying three procedures for scaling: (1) the identification of the concepts to be scaled; (2) the identification of the criterion continuum by which these concepts are to be scaled; and (3) the selection of the role or roles the respondent will be asked to assume.

The following concepts were incorporated into the criterion of the rating scale to measure the teachers' use of: student-teacher planning, student-centered activities, student selection of experiences, activities that combine recreation and learning, small groups, group dynamics, audio-visual aids, resource people from the community and profession, paraprofessionals, and reinforcement of basic subjects (reading, writing, spelling, mathematics, social studies, and use of references) within the activities.

The rating scale, developed to assess the techniques in Project Ahead, was tested for reliability using the split-half and odd-even procedure. The split-half procedure gave a .58 estimate of reliability, while the odd-even procedure gave a .91 estimate of reliability.

The difference in estimates of reliability are explained in the literature. Popham (1967), Guilford (1967),

and Fox (1969) have stated that rating items grouped into similar concept areas could appear on one half and create dissimilar halves. The split-half procedure would give a consistently higher estimate of reliability if the items for an instrument were selected randomly. Fox (1969), indicated that the odd-even procedure for instruments with grouped concept areas should have half of the grouped items on each half of the instrument. By following this procedure, the reliability of the instrument was established.

Face validity of the rating scale was assessed by the evaluators. Content validity was established following the procedures outlined by Fox (1969), in consultation with six experienced researchers and educators. The scale was pretested on New York University graduate students who had several years teaching experience.

Data Analysis Plan

Rank-order correlation was used to test the hypothesis of relationship between percentage of attendance and teaching instructions combining recreation and laarning. The odd-even method and the Spearman-Brown formula were used to establish the reliability of the teacher rating inventory.

The small size of the total population imposed limita-

tions on the inferential statistics that were appropriate for the study.

Results

Rank order correlation did not support the hypothesis that classes with higher percentages of attendance will have significantly higher ratings than classes with low percentage of attendance (see Appendices 3,4).

When teachers in Project Ahead were asked to rate themselves, using the twenty item inventory, on an activity which occurred during a class period the resulting mean score was 71.63 (SD = 8.90), Table 1. Members of the evaluating team gave teachers a 60.72 mean rating (SD = 9.72) on a sample lesson submitted to the program specialists. Members of the evaluating team rated teachers 10.91 lower than teachers rated themselves, a non-significant difference.

Table 1

Means and Standard Deviations of Characteristics of Total Sample on Four Variables

Source	Mean	Standard Deviation	Range
Total Sample			
Evaluator Ratings	60.7224	9.7151	33.67
Self Ratings	71.6250	8.8995	31.00
Enrollment	37.1667	11.1732	44.00
Attendance	0.6533	0.1546	0.50

A rank order correlation between Sample Lessons and Self Ratings by the six schools resulted in r = .058, a non-significant difference in ratings. Table 2 shows a difference of 3.46 between teacher rating of themselves and the evaluating team's rating of the teachers in school number 1. For example, school number 3 had the best percentage of attendance but ranked four according to rating by both rating groups.

Table 2

Means of Sample Lesson Ratings, Means of Self-Ratings and Percentage of Attendance by Schools

Group	Mean of Sample Lesson Ratings	Rank	Mean of Self Ratings	Rank	Percentage of Attendance	Rank
School 1	67.96	1	64.50	6	62	4
School 2	49.93	2	75.50	3	70	2
School 3	41.92	4	69.22	4	83	1
School 4	38.58	6	77.22	1	58	5
School 5	41.36	5	67.75	5	69	3
School 6	42.44	3	75.50	2	45	6

r = .12 (n.s)

The results indicate the high reliability of the rating instrument. This check list is easily administered, non-threatening, and appears to have face and content validity, thereby indicating that this is an instrument that would

warrant further development.

Conclusion

The lack of relationship found in this study between attendance and innovative techniques, contrary to the findings in other similar programs, may be attributed to these factors: (1) The sample lessons turned in and the activities selected by the teachers for self rating are probably samples of their best work, not representative of their average day-to-day activities. Therefore, a more accurate assessment of teaching techniques would require extended in-room observation. (2) Factors other than teacher methods may be contributing to percentage of attendance and should be taken into consideration. Enrollment is higher in lower grades, suggesting that working parents may be using it as day care. However, in spite of the rationale for attending, learning should be taking place and should be assessed. (3) Teachers who have high attendance are assumed to be providing some experiences that are likely to have high appeal. They should be consulted in program planning in the future. (4) The small sample size may have contributed to the lack of relationship. The study should be replicated on a similar program with a much higher enrollment.

Implications and Recommendations

The lack of pre-test achievement data and the inability

to administer a post-test measuring achievement required the evaluation team to attempt to evaluate Project Ahead on the basis of available data. They were unable to assess the learning that might have occured in the program.

Certain recommendations have been generated by the team as the result of the evaluation process, classroom and school observation, and interviews with the staff. It is recommended that:

(1) Some form of pre and post test of achievement be given, to test the assumption that more learning occurs when combined with recreational activities than with traditional school instruction;

(2) Achievement and progress reports from the regular school should be made available to aid summer school staff with planning instructional activities;

(3) Project administrators should have some choice in the classroom personnel selection, based on an evaluation of present performance;

(4) Audio-visual aids should be made more available than was made during Summer, 1971;

(5) Acquisition of materials and supplies should be made earlier in the program year.

(6) More active involvement should be made of the

para-professional in classroom activity. No teachers indicated on the rating instrument the planned use of para-professionals except on field trips;

(7) Staff development for both teachers and para-professionals, focusing on the organization of centers and implementation of recreational learning should be made, combining workshops and actual classroom observation;

(8) Coordination of o going evaluation projects should be made to avoid the confusion that was present this summer with three separate teams in some classrooms.

(9) More appropriate distribution of the pupil class size should be made. Classes size ranged from 18 to 62, with 45.5 being the average.

In spite of the needed changes, the team found a staff that on the whole was energetic, concerned, and open to the evaluation team.

References

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3. Board of Education of the City of New York. Summer Directory, Recreational and Community Activities Marie Collins, Supervisor, 1971.

4. Clark, R.J. Innovative Instruction At Upper Moreland. Pennsylvania School Journal, November, 1970, 132-138.

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7. Good, C.V. Dictionary of Education. New York: McGraw-Hill, 1959.

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9. Hentoff, N. What I Want For My Children. Parents' Magazine, September, 1970, 52-53, 108-109.

10. Harsley, C.B. West Side Pupils Get Bigger Rate New Teaching Techniques Tried in Four Schools. New York Times, May 23, 1971, 96.

11. Johnson, R. Rhythm Is Used to Teach Pupils To Find Their Own Beat in Life. New York Times, May 2, 1971, 54.

12. Lanser, K. (Ed.) Summerhill in Ithaca. Newsweek, February 23, 1970, 65.

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14. Malc lm, A.H. School Methods Discussed Here. Parents Listen as Educators Describe Innovations. New York Times, May 29, 1971, 25.

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16. Stevens, W.K. Shanker Proposes Parents Be Allowed To Pick Child's School. New York Times, February 7, 1971, 48.

Teacher _____ Activity _____

School _____ Subject area _____

Date _____

Instructions: Select one planned activity that your students engaged in on Thur. or Fri. Please fill in this checklist describing that activity. Please include samples of the children's work where possible. Thank you in advance for your cooperation.

****

TO WHAT EXTENT DID THE LESSON:	Limited		Some		Considerable
1. Combine recreation and learning?	1	2	3	4	5
2. Reflect student-teacher planning?	1	2	3	4	5
3. Provide for individualization?	1	2	3	4	5
4. Allow for student selection of experiences?	1	2	3	4	5
5. Involve "learning by doing"?	1	2	3	4	5
6. Exemplify student-centered activities?	1	2	3	4	5
7. Make use of issues relevant to the age of the student?	1	2	3	4	5
8. Make use of issues relevant to today?	1	2	3	4	5
9. Incorporate the diverse ethnic backgrounds of the students?	1	2	3	4	5
10. Reinforce basic skills(reading, writing, spelling, mathematics, social studies, use of references)?	1	2	3	4	5
11. Use grouping appropriate for the activity?	1	2	3	4	5
12. Utilize group involvement?	1	2	3	4	5
13. Use unique and experimental approaches for presenting materials?	1	2	3	4	5
14. Involve field trips?	1	2	3	4	5
15. Use resource people?	1	2	3	4	5
16. Involve paraprofessionals?	1	2	3	4	5
17. Incorporate audio-visual aids?	1	2	3	4	5
18. Accomplish your aims and objectives?	1	2	3	4	5
19. Provide for practical application of basic skills?	2		3	4	5
20. Promote the development of communication skills?	2		3	4	5

Thank you.

Appendix 1

Rank Order Correlation of Teachers As Rated by Evaluative Team and Attendance

Teacher Number	Rank Evaluating Team	Rank Percentage of Attendance	d	d^2
33	1.0	1.5	- 0.5	0.25
13	2.0	7.0	- 5.0	25.00
53	3.0	11.5	- 8.5	72.25
62	4.0	21.0	-17.0	289.00
14	5.0	14.5	- 9.5	90.25
64	6.0	21.0	-15.0	225.00
31	7.5	8.5	- 1.0	1.00
12	7.5	21.0	-13.5	182.25
43	9.0	13.0	- 4.0	16.00
51	10.0	8.5	1.5	2.25
63	11.0	21.0	-10.0	100.00
22	12.0	5.0	- 7.0	49.00
54	14.0	10.0	- 4.0	16.00
11	14.0	14.5	- 0.5	0.25
41	14.0	19.0	- 5.0	25.00
32	16.0	11.5	4.5	20.25
44	17.0	16.0	1.0	1.00
61	18.0	18.0	0.0	0.00
42	19.0	17.0	2.0	4.00
52	20.0	8.5	11.5	132.25
34	21.0	4.0	17.0	289.00
21	22.0	23.5	- 1.5	2.25
24	23.0	6.0	-17.0	289.00
23	24.0	1.5	22.5	506.25
			d^2	= 2337.50

$$r_s = 1 - \frac{6\sum d^2}{N^3-N}$$

$$= 1 - \frac{6 \times 2337.50}{(24)^3-24}$$

$$= 1 - \frac{14025.00}{13800}$$

$$= 1 - 1.01$$

$$r_s = -.01$$

Appendix 2

Rank Order Correlation of Teachers As Rated by Evaluative Team and Teachers Ratings of Self

Teacher Number	Rank Evaluating Team	Rank Teacher Self Rating	d	d^2
33	1.0	5.0	4.0	16.00
13	2.0	18.0	16.0	256.00
53	3.0	15.0	12.0	144.00
62	4.0	3.5	- .5	.25
14	4.0	15.0	11.0	121.00
64	6.0	9.0	3.0	9.00
31	7.0	23.0	16.0	256.00
12	8.0	20.0	12.0	144.00
43	9.0	1.0	- 8.0	64.00
51	10.0	24.0	4.0	16.00
63	12.0	15.0	3.0	9.00
22	12.0	9.0	- 4.0	16.00
54	12.0	13.0	1.0	1.00
11	14.0	21.0	7.0	49.00
41	15.0	3.5	11.5	132.25
32	17.5	22.0	4.5	20.25
44	17.5	19.0	1.5	2.25
61	17.5	11.5	- 6.0	36.00
42	17.5	7.0	10.5	100.25
52	20.5	11.5	- 9.0	81.00
34	20.5	6.0	-14.5	410.25
21	22.0	2.0	-20.0	400.00
24	23.0	17.0	- 6.0	36.00
23	24.0	9.0	-15.0	225.00
				$d^2 = 2554.50$

$$r_s = 1 - \frac{6\sum d^2}{N^3-N}$$

$$= 1 - \frac{6\times 2554.50}{(24)^3-24}$$

$$= 1 - \frac{1532580}{13800}$$

$$= 1 - 1.11$$

$$r_s = -.11$$

Appendix 3

Rank Order Correlation of Teachers Self Rating and Attendance

Teacher Number	Rank Teacher Self Rating	Rank Percentage of Attendance	d	d^2
43	1.0	3.0	- 2.0	4.00
21	2.0	12.0	-10.0	100.00
41	3.5	2.0	1.5	2.25
62	3.5	15.0	-11.5	132.25
33	5.0	4.0	1.0	1.00
34	6.0	14.0	- 8.0	64.00
42	7.0	5.0	2.0	4.00
23	9.0	22.0	-13.0	169.00
22	9.0	12.0	- 3.0	9.00
64	9.0	10.0	0.5	0.25
61	11.5	8.0	3.5	12.25
52	11.5	20.5	9.5	90.25
54	13.0	24.0	-11.0	121.00
63	15.0	12.0	3.0	9.00
53	15.0	23.0	8.0	64.00
14	15.0	17.5	- 2.5	6.25
24	17.0	9.0	8.0	64.00
13	18.0	17.5	0.5	0.25
44	19.0	7.0	12.0	144.00
12	20.0	17.5	2.5	6.25
11	21.0	17.5	3.5	12.25
32	22.0	6.0	16.0	256.00
31	23.0	1.0	22.0	484.00
51	24.0	20.5	- 3.5	12.25
				$d^2 = 1768.50$

$$r_s = 1 - \frac{6\Sigma d^2}{N^3-N}$$

$$= 1 - \frac{6 \times 1768.50}{(24)^3-24}$$

$$= 1 - \frac{10611.00}{13800}$$

$$= .76$$

$$r_s = .24$$

Appendix VII

EVALUATION OF A SUMMER INSTITUTE FOR TRAINING MINORITY GROUP RESEARCH AND EVALUATION SPECIALISTS II

Would you please read the following questions and then indicate your response as requested.

1. How would you rate the following:

	Very Good	Good	Fair	Poor	Please make any comments that you would care to make
Organization of the Institute					
Quality of Instruction					
Field Experience					
Presentation of Specific Topics					
Problem Formation					
Hypothesis Statement					
Statistics					
Research Outline					
Research Report					
Uses of Evaluation					

2. Please give your reaction to the following:

A. Ways the Institute can be improved:

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

(USE ANOTHER SHEET OF PAPER FOR OTHER SUGGESTIONS)

B. Specific ways in which you plan to use the skills developed in the Institute.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

(USE ANOTHER SHEET OF PAPER FOR ADDITIONS)

PLEASE INDICATE: Your sex _____; Age_____

Years of teaching experience _____; Undergraduate Major _____; Highest Graduate Degree and Field _____

C. Specific weaknesses of the Institute and your suggestions for avoiding them.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

D. What specific follow-up do you suggest for the Institute?

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

Appendix VIII

I N Q U I R Y

It would be very helpful if you would jot down responses to the questions below, tear off this sheet, and promptly zip it off to the Institute, 10 Washington Place, New York, New York 10003.

- -

We would like to know, now that you are back in the field, what specific aspects of your summer experience proved to be most practically worthwhile?

Do you think you will be able to join us for the AERA Workshop Session in April at Chicago? Yes _____ No _____

Not sure _____ When will you be able to tell us? _____

_____

Your Name Last First Middle

Current Address: _____ _____

Home Office

_____ _____

Current Telephone: _____ _____

Home Office

Appendix IX

EXAMINATION ON RESEARCH CONCEPTS AND TECHNIQUES

1. A statement of expectation concerning the relationship between variables which can be tested is a:

   a) biased opinion
   b) very risky thing to do
   c) research hypothesis
   d) hypothetical construct

2. A visual-aid diagram which describes the sequence of operations involved in a computer routine is a:

   a) flow chart
   b) Fortran program
   c) disc system
   d) input control

3. The degree of consistency present in a set of measurements is:

   a) impossible to determine
   b) the reliability of the set
   c) directly correlated to the care exercised in designing the set
   d) the validity of the set

4. In experimental research, the independent variable is the variable

   a) manipulated by the experimentater
   b) presumed to be the result of the dependent variable
   c) held constant by the experimentater
   d) measured by the experimentater

5. A set of instructions in machine language which tells a computer what operations to perform is a:

   a) verifier
   b) operations manual
   c) input array
   d) computer program

6. A statement that indicates the process used to measure a term is a:

   a) intuitive definition
   b) special definition not usually accepted
   c) dictionary definition
   d) operational definition

7. In order to have experimental groups that can be assumed to be equal in all possible characteristics, within chance limits, an experimentater usually

   a) randomly assigns the total subjects to the groups
   b) accurately measures all characteristics of each subject
   c) has the subjects volunteer to enter the different groups
   d) does nothing since this is really impossible

8. The major disadvantage of fixed-alternative items in interview schedules is:

   a) difficulty of scoring
   b) superficiality
   c) evaluation
   d) predictability

9. A set of subjects drawn in a random, unbiased manner and having the characteristics of the larger universe is a:

   a) control group
   b) population
   c) infinite set
   d) representative sample

10. The theoretical foundation of a research study is developed

    a) as the research progresses
    b) after the results have been analyzed
    c) in the review of the literature
    d) in operational terms

11. Which of the following is <u>not</u> an example of descriptive statistics?

    a) analysis of variance
    b) central tendency
    c) correlation
    d) variability

12. Predictive validation would be the most appropriate method to validate a:

    a) intelligence test
    b) personality inventory
    c) aptitude test
    d) interview schedule

13. A scale which has the property that numerically equal distances on the scale represent equal distances on the property being measured is a

    a) nominal scale
    b) interval scale
    c) ordinal scale
    d) geometric scale

14. Which of the following is an example of a descriptive research design?

    a) random study
    b) before-after study
    c) pretest-post test study
    d) correlational study

15. One practical advantage of nonparametric statistical procedures is that they

    a) have greater power than parametric procedures
    b) are concerned with continuous variables
    c) are applicable to small samples
    d) are more precise than inferential procedures

16. The oldest approach to problem solving is

    a) research
    b) reference to authority
    c) trial and error
    d) reference to precedent

17. Which of the following is a statistical procedure to estimate the probability that an observed frequency distribution occurred by chance?

    a) analysis of variance
    b) chi square
    c) t test
    d) binomial expansion

18. The major source of error variance in the use of a forced-choice scale as a data collection procedure is in the

    a) administrator
    b) scale
    c) responses
    d) evaluation

19. The only statistical procedure that expedites communication without any loss of information is a

a) simple-frequency distribution
b) correlational matrix
c) rank-order correlation
d) summary-frequency distribution

20. Measurement criteria for evaluative surveys should be

a) developed as the survey progresses
b) stated in advance and adhered to
c) changed as the researcher deems necessary in the course of the survey
d) developed in the analysis of data

21. One limitation of ex post facto research is the

a) plausibility of only one explanation of complex events
b) length of time required to conduct the study
c) inability to manipulate the independent variables
d) cost of the study

22. In designing a research study the researcher controls as much systematic variance as possible in order to

a) reduce the length of the study
b) reduce the error variance
c) increase the likelihood of significant results
d) increase the error variance

23. The extent to which a research investigator wishes to generalize his finidngs will influence his selection of

a) instruments
b) personnel
c) analysis of data
d) sample

24. The probability that the obtained result of a statistic could occur by chance is indicated by the

a) power of the test
b) error variance
c) significance level
d) F score

A school district wishes to study the effect of teaching machines on the reading achievement of children. Three groups of children in the fourth grade are selected randomly. One group of children use machine X and another group use machine Y. A third group use no machine. The same teacher taught the three groups reading for one hour each day for a year. All three groups covered the same material and each child was asked to read one chapter a day from the same books. Periodic reading tests were given in all three groups to determine the amount of reading achievement.

25. In the above study the independent and dependent variables may be defined as follows:

    a) machines X and Y and the teacher are independent variables and the amount of reading achievement is the dependent variable.
    b) machines X and Y, reading material and the number of chapters read are the independent variables and the amount of reading achievement is the dependent variable.
    c) machines X and Y are the independent variables and the amount of reading achievement is the dependent variable
    d) machines X and Y, reading material, and the number of chapters read are the dependent variables and the amount of reading achievement is the independent variable.

26. If a research investigator wished to determine the direction and degree of the relationship between linearly related variables, he would compute a

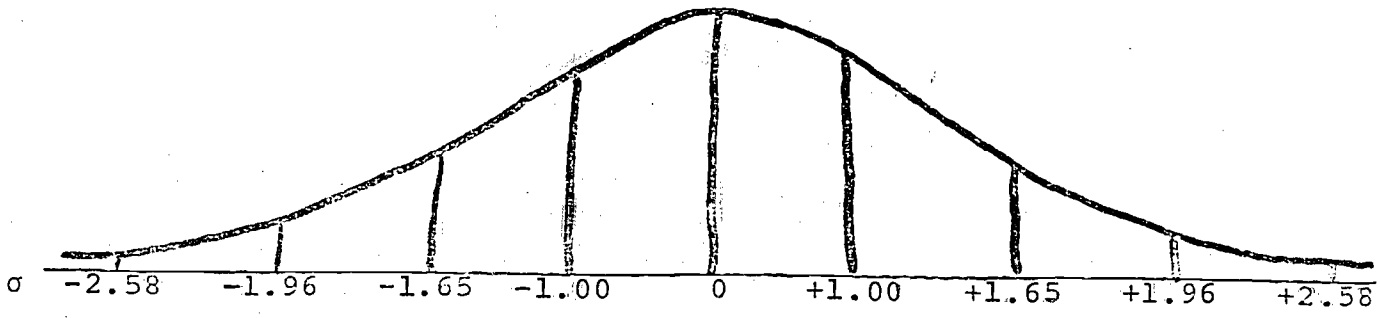
    a) chi square
    b) Kendall's Q
    c) correlation coefficient
    d) semantic differential

27. An estimate of how far the sample mean is likely to differ from the population mean is

    a) related to the amount of error inherent in the population mean
    b) the standard error of the mean
    c) merely a guess
    d) the mean variance

28. Which of the following devices is <u>not</u> used for input of information in a computer system?

    a) cathode-ray display
    b) magnetic tape
    c) punched cards
    d) magnetic disk



29. Given a mean of 5.0 and a standard deviation of 1.5 for the above distribution, on which ordinate of the σ scale would a score of 7.94 be located?

a) -1.65
b) +1.96
c) +2.58
d) -1.96

30. Given a mean of 25.0 and a standard deviation of 4.2 for the above distribution, 68.26% of the scores are likely to fall between

a) 20.8 - 29.2
b) 16.6 - 33.4
c) 18.1 - 31.9
d) 16.8 - 33.2

31. If a baseball coach wishes to determine whether tall children or short children are better pitchers, he would perform a

a) one-tail test of significance of difference
b) correlational analysis
c) chi-square analysis
d) two-tail test of significance of difference

32. The statistical proposition which states that no differences exist between two or more sample means is known as the

a) experimental hypothesis
b) hypothetical postulate
c) normal distribution
d) null hypothesis

33. Meticulous care must be exercised in writing the methodology-data collection section of the research report so that

a) the interpretation of the findings cannot be challenged
b) another investigator may replicate the study if he so desires
c) the rules of scientific logic are clearly indicated
d) the report will be well balanced

34. One difference between fundamental and action research in the research process is the

a) assumptions
b) data collection methods
c) definitions
d) purposes

35. A serious weakness of projective techniques for data collection is

a) different observers must agree on the scoring of responses
b) the degree of choice available to the subject
c) lack of variety and richness of responses
d) different observers may easily reach different conclusions concerning the responses

36. An entity or process that is presumed to exist but is currently unable to be observed is a

a) theory
b) guess
c) hypothesis
d) hypothetical construct

37. The following scores were obtained by an elementary reading class at the end of one semester of instruction:

11	6	17
6	15	8
2	5	6

If the last
If the last score were changed to 10

a) the mean of this group of data would change but the median would remain the same.
b) the mean and median of this group of data would change
c) the mean, median and mode would change
d) the mean, median and mode would remain the same

38. The mean age of a sample group drawn from population X is 24.5 years and the standard error of the mean is 4.3. There is a 95% probability that the computed mean age of other samples drawn from population X would fall within the range of

a) 16.1 - 32.9
b) 13.4 - 35.6
c) 20.2 - 28.8
d) 15.3 - 33.7

39. The advent of electronic data processing has had a great influence on research because it has

a) created more jobs for researchers
b) eliminated the need for reliability tests
c) made it possible to conduct statistical analyses previously impossible because of the time involved in the calculations
d) increased the cost of research

40. The main function of the research report is to

a) convince the reader of the adequacy of the research
b) report as expeditiously as possible what was done, why it was done, the results and the conclusions
c) contribute to the body of scientific knowledge
d) get it published

41. What is the major difference between an analysis of variance and the t test?

a) none
b) the type of subjects to be tested
c) the number of groups which can be tested
d) the conceptual approach

42. An important criteria of effective report writing is

a) to cover all details
b) eloquence of writing style
c) to be brief and to the point
d) the use of technical language

43. A variable that can only be classified or measured in whole units is said to be

a) continuous
b) discrete
c) intervening
d) infinite

44. Since the actual mechanism and circuitry of an electronic computer tend to be highly reliable

a) researchers can now forget about errors in data analysis
b) all possibility of human errors in data analysis is eliminated
c) a high percentage of computational errors still occur in the central processing unit
d) human errors can be introduced in a number of ways

45. The major difference between true experimental and quasi-experimental research is

a) quasi-experimental research does not allow the control and/or manipulation of as many relevant variables as true experimental research
b) true experimental research does not allow the control and and/or manipulation of as many relevant variables as true experimental research
c) the terms are synomous
d) quasi-experimental research is descriptive and true experimenatal research is action

46. If a student's score on the final examination in a physics class is at the 72nd percentile, one can safely assume that

a) the student is above average in physics
b) the student answered 72 out of 100 questions correctly
c) no assumption is possible
d) 72% of the class scored lower than this student

47. As a data collection instrument for survey research, the mailed questionnaire

a) has several very serious drawbacks
b) most always produces valid generalizations
c) is inexpensive, accurate and fast
d) can be used easily and effectively by relatively inexperienced researchers

48. Systematic variance may best be defined as

a) any natural or man-made influences that cause events to happen in a certain predictable way
b) the fluctuation or varying of measures due to chance
c) the variance of statistics computed from samples
d) the variance of a universe or population of measures

49. A set of items equally spaced in a difficulty continuum is a

a) correlation ratio
b) standard score
c) objective test
d) scale

50. Which of the following is <u>not</u> a measure of variability?

a) range
b) average deviation
c) mean
d) standard deviation

Appendix X

RESEARCH TRAINING INSTITUTE

One-day Workshop Program

April 3, 1972

9:00 - 9:30 A.M.	Coffee and danish
9:30 - 10:00 A.M.	A review and evaluation of the Summer 1971 Institute for Training Minority Group Research and Evaluation Specialists II. Identification of present research responsibilities of participants.
10:30 - 12:00 noon	Five minute presentations by each participant concerning the application of the research training experience to his specific job situation.
12:00 - 1:30 P.M.	LUNCH BREAK
1:30 - 2:00 P.M.	Continuation of participant presentations.
2:00 - 3:00 P.M.	Presentation by Prof. Brown on recent developments in the utilization of indigenious residents and personnel in research. Emphasis on the need for training and clear role definition.
3:00 - 4:30 P.M.	Discussion of examination results and a review of the areas of difficulty as revealed by the examination and by the presentations.
4:30 - 5:00 P.M.	Discussion of recommendations for similar programs in the future.

Appendix XI

INSTITUTE STAFF

Roscoe C. Brown, Jr. Director
- Institute of Afro-American Affairs
  New York University
- Professor, School of Education
  New York University
- Director, Institute for Training Minority
  Group Research and Evaluation Specialists II
- Director, AERA Workshop

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